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Health-related quality of life of individuals with transfemoral amputation fitted with the Transcutaneous Bone Anchoring Prosthesis following the OGAAP

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Background

The benefits and safety transcutaneous bone anchored prosthesis relying on a screw fixation are well reported.^[1-26] However, most of the studies on press-fit implants and joint replacement technology have focused on surgical techniques.^[27, 28] One European centre using this technique has reported on health-related quality of life (HRQOL) for a group of individuals with transfemoral amputation (TFA). Data from other centres are needed to assess the effectiveness of the technique in different settings.^[19]

Aim

This study aimed at reporting HRQOL data at baseline and up to 2-year follow-up for a group of TFAs treated by Osseointegration Group of Australia who followed the Osseointegration Group of Australia Accelerated Protocol (OGAAP), in Sydney between 08/12/2011 and 09/04/2014.

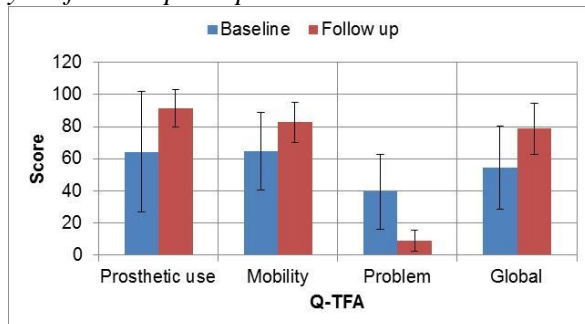
Methods

A total of 16 TFAs (7 females and 9 males, age 51 ± 12 y, height 1.73 ± 0.12 m, weight 83 ± 18 kg) participated in this study. The cause of amputation was trauma or congenital limb deficiency for 11 (69%) and 5 (31%) participants, respectively. A total of 12 (75%) participants were prosthetic users while 4 (25%) were wheelchair bound prior the surgery. The HRQOL were obtained from Questionnaire for Persons with Transfemoral Amputation (Q-TFA) using the four main scales (i.e., Prosthetic use, Mobility, Problem, Global) one year before and between 6.5 and 24 months after the Stage 1 of the surgeries for the baseline and follow-up, respectively.

Results

The lapse of time before and after Stage 1 was -6.19 ± 3.54 and 10.83 ± 3.58 months respectively. The raw score are presented in Figure 1.

Figure 1: Percentage of participants reporting the baseline and improvement, no change or deterioration for main score of the Q-TFA at 2-year follow-up compare to baseline



Discussion and Conclusion

The average results demonstrated an improvement in each domain, particularly in the reduction of problems and an increase in global state. Furthermore, 56%, 75%, 94% and 69% of the participants reported an improvement in Prosthetic use, Mobility, Problem, Global scales, respectively. These results were comparable to previous studies relying of screwed fixation confirming that press-fit implantation is a viable alternative for bone-anchored prostheses.^[17, 22]

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